

## TOWN OF BRANDON

49 CENTER STREET • BRANDON, VERMONT 05733

FAX (802) 247-5481

TOWN  
ADMINISTRATION •  
(802) 247-3635

TOWN CLERK/  
TREASURER •  
(802) 247-5721

POLICE  
DEPARTMENT •  
(802) 247-5723

MAY 2 11 03 AM '97  
ZONING/RENTAL  
DEPARTMENT  
(802) 247-3635

WASTE MANAGEMENT  
DIVISION

April 30, 1997

Chuck Schwer, Supervisor  
Sites Management Section  
Vermont Agency of Natural Resources  
Department of Environmental Conservation  
103 South Main Street, West Office  
Waterbury, VT 05671-0404

RE: SMS Site #96-2112, Town of Brandon Highway Garage

Dear Mr. Schwer:

In response to your letter dated February 10, 1997, please find enclosed the site assessment by Lincoln Applied Geology. It appears that there was very little contamination from this site, and at this time it has not migrated to any nearby receptors. I hope this satisfactorily addresses your concerns.

Sincerely,

Bruce A. Rounds  
Superintendent of Public Works

BAR/esj



April 29, 1997

Mr. Bruce Rounds  
Town of Brandon  
49 Center Street  
Brandon, Vermont 05733

TOWN OF BRANDON

APR 30 1997

RECEIVED

RE: Ground Water Sampling at the Brandon Town Highway Garage - SMS Site #96-2112

Dear Mr. Rounds:

In accordance with our recent conversations Lincoln Applied Geology, Inc. (LAG) monitored and sampled the existing monitoring well in the former underground storage tank (UST) area at the Brandon Town Highway Garage (BTHG) site. The water quality analysis results indicate that very little dissolved phase petroleum contamination exists on-site and that risk to nearby potential sensitive receptors is essentially non-existent.

On April 8, 1997 the monitoring well at the BTHG was gauged to determine water level and free phase product with an interface probe capable of measuring 0.01 inches of free phase product. The water level was measured at 4.65 feet below the top of casing which equates to approximately 2.5 feet below grade. No free phase product was present, and no sheen was seen on the waters subsequently sampled from the well. A photoionization detector (PID) was used to screen the headspace vapors in the well and gave a reading of background (BG).

The well was purged of, at least, three well volumes of ground water prior to sampling with a disposable bailer. The sample was acid preserved and delivered to Green Mountain Laboratories, Inc. (GML) for analysis to determine the presence of petroleum related contaminants, benzene, toluene, ethylbenzene, xylenes, and MTBE. The analytical result sheet is included in **Appendix A** and indicates that 202 parts per billion (ppb) of total BTEX and MTBE was identified. The only compounds quantified above the detection limit were ethyl benzene at 42 ppb and total xylenes at 160 ppb. These concentrations are below current Vermont drinking water standards.

While on-site LAG visually monitored the wet area in the assumed downgradient ground water flow direction across Route 73. No sheens or stressed vegetation was identified. With regard to other potential sensitive receptors in the area, nearby house basements are greater than 100 yards from the former UST area. All of the nearby properties are served by a public water system. The clay like nature of the soils in the former UST area should preclude any migration of the mild level of identified contamination towards these potential receptors.

Mr. Bruce Rounds  
Page 2  
April 29, 1997

In summary, the data collected to date indicates that very little petroleum related contamination exists in the former UST area. Essentially non-existent risk to nearby potential sensitive receptors has been identified. We recommend that you submit this information to the Waste Management Division (WMD) Sites Management Section (SMS) in order to comply with their February 10, 1997 correspondence. If you have any questions or concerns with regard to this matter, please do not hesitate to call me at 453-4384.

Sincerely,



Steven LaRosa  
Hydrogeologist

SL/clk  
enclosures

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Lincoln Applied Geology, Inc  
Environmental Consultants

Revell Drive • Lincoln, Vermont 05443 • (802) 453-4384 • FAX (802) 453-5399

# Appendix A

## Analytical Results

# GREEN MOUNTAIN LABORATORIES, INC.

RR 3, BOX 5210  
Montpelier, Vermont 05602

Phone (802) 223 - 1468

Fax (802) 223 - 8688

## LABORATORY RESULTS

CLIENT NAME:	Lincoln Applied Geology	REFERENCE NO.:	2039
ADDRESS:	RD 1 Box 710	PROJECT NO.:	NA
	Bristol, VT 05443	DATE OF SAMPLE:	04/08/97
SAMPLE LOCATION:	Brandon Dept. of Public Works	DATE OF RECEIPT:	04/08/97
SAMPLER:	Jeremy Revell	DATE OF ANALYSIS:	04/14/97
ATTENTION:	Steve LaRosa	DATE OF REPORT:	04/16/97

Pertaining to the analyses of specimens submitted under the accompanying chain of custody form, please note the following:

- Water samples submitted for VOC analysis were preserved with HCl.
- Specimens were processed and examined according to the procedures outlined in the specified method.
- Holding times were honored.
- Instruments were appropriately tuned and calibrations were checked with the frequencies required in the specified method.
- Blank contamination was not observed at levels interfering with the analytical results.
- Continuing Calibration standards were monitored at intervals indicated in the specified method. The resulting analytical precision and accuracy were determined to be within method QA/QC acceptance limits.
- The efficiency of analyte recovery for individual samples was monitored by the addition of surrogate analyte to all samples, standards, and blanks. Surrogate recoveries were found to be within laboratory QA/QC acceptance limits, unless noted otherwise.

Reviewed by:

  
Althea Lindell  
Chemical Services

LINCOLN APPLIED GEOLOGY

# GREEN MOUNTAIN LABORATORIES, INC.

RR 3, BOX 5210  
Montpelier, Vermont 05602

Phone (802) 223 - 1468

Fax (802) 223 - 8688

## LABORATORY RESULTS

GC/MS METHOD - BTEX (BENZENE, TOLUENE, ETHYLBENZENE, XYLENES) + MTBE

GML REF. #: 2039  
STATION: MW-1  
ANALYSIS DATE: 04/14/97  
DATE SAMPLED: 04/08/97  
SAMPLE TYPE: WATER

PARAMETER	PQL (µg/L)	Conc. (µg/L)
Benzene	10	ND
Toluene	10	ND
Ethylbenzene	10	42
Xylenes	30	160
MTBE	50	ND

Surrogate % Recovery: 117 %

ND = Not Detected

BPQL = Below Practical Quantitation Limits





## State of Vermont

Department of Fish and Wildlife  
Department of Forests, Parks and Recreation  
Department of Environmental Conservation  
State Geologist  
RELAY SERVICE FOR THE HEARING IMPAIRED  
1-800-253-0191 TDD>Voice  
1-800-253-0195 Voice>TDD

AGENCY OF NATURAL RESOURCES  
Department of Environmental Conservation

Waste Management Division  
103 South Main Street / West Office  
Waterbury, VT 05671-0404  
Tel: (802) 241-3888  
Fax: (802) 241-3296

COPY

February 10, 1997

TOWN OF BRANDON

BRUCE ROUNDS  
TOWN OF BRANDON  
49 CENTER STREET  
BRANDON, VT 05733

FEB 12 1997

RECEIVED

RE: Petroleum contamination at Town of Brandon Highway Garage  
Rt. 73 West, Brandon, VT  
SMS Site # 96-2112

Dear Mr. Rounds:

The Sites Management Section (SMS) has received a site assessment report outlining the subsurface conditions for the above referenced site, submitted by Steven LaRosa of Lincoln Applied Geology, Inc. on October 28, 1996. This report summarizes the degree and extent of contamination encountered during the assessment. The tanks removed were one (1) 2,000 gallon, gasoline underground storage tank (UST) and one (1) 4,000 gallon, gasoline UST.

During the tank pull, soils screened at 10.0 feet below ground surface (fbgs) had a peak volatile organic compound (VOC) concentration of 200 parts per million (ppm) as measured by a photoionization detector (PID). Groundwater was encountered at 1.0 to 2.0 feet below ground surface. Elevated VOC concentrations were recorded in the area "...generally described as 1 foot of fine to medium sand directly surrounding the UST.". Continued excavation revealed native soils described as silty very fine sands and silty clay. VOC concentrations, as measured by a PID, declined to a less than 10 ppm average three feet from the UST#1. VOC concentrations as measured by a PID in native soils surrounding UST#2 were recorded to be 20 to 30 ppm. Free phase petroleum product was found to be present under both USTs. All excavated soil was backfilled since the full extent of the contamination was unknown. A single groundwater monitoring well was installed in the UST excavation pit prior to backfilling.

Based on the above information, the SMS determined that additional work is



necessary at the site in order to determine the severity of the contamination present. Due to the possibility of contaminant impact to nearby receptors, the SMS is requesting that the Town of Brandon retain the services of a qualified environmental consultant to perform the following:

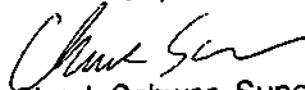
- Determine the degree and extent of contamination, if any, to groundwater. This can be accomplished by collecting groundwater samples from the 1 previously installed monitoring wells and having the samples analyzed for BTEX and MTBE compounds. Additional monitoring wells may be needed if the extent of the contamination can not be determined from the above.
- Perform an assessment of the site to determine the potential for sensitive receptors to be impacted by the contamination. This should include basements of adjacent buildings, nearby surface water, and any public or private drinking water wells which are located within the vicinity of the site. If any water supplies appear to be at risk from this contamination, they should be sampled and analyzed for BTEX and MTBE compounds.
- Determine the need for a long term treatment and/or monitoring plan which addresses the contamination present at the site. The need for such a plan should be based on the results of the above investigation.
- Actively recover any free phase petroleum product measured in the ground in excess of 1/8th of an inch. If this is done manually, a log must be maintained which documents the dates product was measured, the thickness of the product and the amount removed.
- Submit to the SMS a summary report which outlines the work performed, as well as provides conclusions and recommendations. Included should be analytical data, a detailed site map showing the location of any potential sensitive receptors, an area map, detailed well logs and a groundwater contour map.

Please have your consultant submit a preliminary work plan and cost estimate or a site investigation expressway notification form within fifteen days of your receipt of this letter so that it may be approved prior to the initiation of onsite work. Enclosed please find a list of consultants who perform this type of work in the area as well as the brochure "Selecting Your UST Cleanup Contractor", which will help you in choosing an environmental consultant.

Based on the current information available, the USTs at the Town of Brandon Highway Garage are covered by the Petroleum Cleanup Fund (PCF) as set forth in 10 V.S.A. § 1941. An owner or permittee of a UST that does not hold private insurance coverage applicable to this situation, is eligible for reimbursement from the PCF for

can be utilized for reimbursement. An owner or permittee of an UST, who is not in significant violation of his or her permit, is eligible for reimbursement from the PCF. The owner or permittee must pay for the removal or repair of the UST and the first \$10,000 of the cleanup; there after the PCF will reimburse the owner or permittee for additional eligible cleanup costs up to \$1,000,000. All expenditures must be pre-approved by the Agency or performed in accordance with the "Site Investigation Guidance" expressway program for reimbursement to occur. Please refer to the attached guidance document "Procedures for Reimbursement from the Petroleum Cleanup Fund" for further information on this program. Additionally, the Secretary of the Agency of Natural Resources reserves the right to seek cost recovery of fund monies spent at the Highway Garage site if the Secretary concludes the Town of Brandon is in significant violation of the Vermont Underground Storage Tank Regulations and/or the Underground Storage Tank statute ( 10 V.S.A., Chapter 59). If you have any questions, please feel free to contact me at (802) 241-3876.

Sincerely,



Chuck Schwer, Supervisor  
Sites Management Section

cc: Brandon Selectboard  
Brandon Health Officer  
DEC Regional Office  
Steven LaRosa, LAG  
CS:AS/SMS/962112